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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,359

10/24/2003

Mark T. Devlin

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1665

34769

7590

07/19/2006

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,359	<b>Applicant(s)</b> DEVLIN ET AL.	
	<b>Examiner</b> Callie E. Shosho	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-8 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-8 and 11-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections are overcome by applicants' amendment filed 5/2/06.

In light of the new grounds of rejection set forth below, the following action is non-final.

**Double Patenting**

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 4-8, and 11-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 8, 12-19, 21-23, 25, and 27-31 of copending Application No. 10/693,197. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/693,197 discloses additive concentrate comprising about 15% to about 40% extreme pressure compound comprising a sulfur-containing compound, about 10% to about 40% antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, about 2 to about 25% friction modifying compound (corresponding to presently claimed b(i) and (c)) comprising alkylene amine that is selected from the group consisting of N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof, about 15 to about 60% dispersant compound, and minor amount of diluent. Copending 10/693,197 also discloses composition comprising about 0.5% to about 2.5% extreme pressure compound comprising a sulfur-containing compound such as sulfurized olefin or polysulfide, about 0.2% to about 2% antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, about 0.1% to about 1% friction modifying compound comprising alkylene amine that is selected from the group consisting of N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof, about 0.5 to about 3.5% dispersant compound,

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and major amount of base oil wherein the base oil has viscosity in the range of SAE 50 to SAE 250 or SAE 70W to SAE 140. There is also disclosed method for making the composition, lubed gear box comprising a gear lubricated with the composition, wind turbine gear assembly lubricated with the composition, and a method of lubricating a wind turbine gear assembly.

The difference between copending 10/693,197 and the present claimed invention is (a) copending claims require dispersant while present claims are silent with respect to dispersant, (b) no disclosure in copending claims of load carrying capacity enhancing combination of (i) hydrocarbylamine compound and (ii) alkylphosphoro(mono)thioate, (c) the amounts of components comprising the concentrate, and (d) kinematic viscosity of the composition.

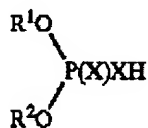
With respect to difference (a), while there is no requirement in the present claims of a dispersant, in light of the open language of the present claims, i.e. "comprising", it is clear that the present claims are open to the inclusion of additional ingredients including dispersant as required in copending 10/693,197 and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

With respect to difference (b), while there is no explicit disclosure in copending 10/693,197 of load carrying capacity enhancing combination of (i) hydrocarbylamine compound and (ii) alkylphosphoro(mono)thioate as presently claimed, it is noted that the copending claims disclose the use of friction modifying compound comprising alkylene amine that is selected from the group consisting of N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof corresponding to (i) and antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid.

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Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619, 622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 7, lines 5-20 and page 10, lines 29-31 of copending 10/693,197 that discloses that the oil-soluble amine salt of phosphoric acid is formed from combination of amine and phosphoric acid ester of the formula:



where  $\text{R}^1$  is hydrogen or hydrocarbyl group,  $\text{R}^2$  is hydrocarbyl group, and X is oxygen or sulfur. Thus, the composition or concentrate comprises both amine and phosphoric acid ester.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the concentrate and composition of copending 10/693,197 each comprise both hydrocarbylamine, i.e. N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof, and alkylphosphoro(mono)thioate (as seen in

the above formula) as presently claimed and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

With respect to difference (c), it is noted that while the amounts of extreme pressure compound comprising a sulfur-containing compound, antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, and friction modifying compound disclosed in the copending claims are not identical to those presently claimed, it is noted that the amounts of each component clearly overlap those presently claimed. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use amounts of sulfur-containing compound, antiwear compound comprising a phosphorous containing compound that is oil-soluble amine salt of phosphoric acid, and friction modifying compound, including those presently claimed, in order to control the wear resistance and friction properties of the concentrate, and thereby arrive at the claimed invention from the copending one.

With respect to difference (d), it is noted that the copending claims are silent with respect to the kinematic viscosity of the composition.

On the one hand, given that the copending composition utilizes same type and amount of ingredients as presently claimed including major amount of base oil which possesses same viscosity as presently claimed, it is clear that the composition of the copending composition

would intrinsically possess kinematic viscosity as presently claimed, and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

On the other hand, applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619, 622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 20, lines 20-23 of copending 10/693,197 that discloses that the composition possesses kinematic viscosity of at least 12 cSt at 100 °C.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the composition of copending 10/693,197 does in fact possess kinematic viscosity as presently claimed and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Claim Rejections - 35 USC § 103**

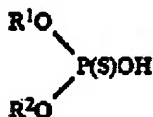
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.



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5. Claims 1, 4-5, 7-8, 11-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S. 2002/0119895) in view of Burjes et al. (U.S. 4,755,311).

Cook et al. disclose composition used as gear lubricant and in turbines wherein the composition comprises polysulfide, dithiocarbamate, i.e. friction modifier, and amine salt of monothiophosphoric acid wherein the amine includes ethoxylated N-tallow trimethylene diamine and which corresponds to the presently claimed combination of hydrocarbylamine and alkylphosphoro(mono)thioate. For specific types of monothiophosphoric acid, Cook et al. refers to Burjes et al. (incorporated by reference) which discloses monothiophosphoric acids of the formula:



where  $\text{R}^1$  and  $\text{R}^2$  are each hydrocarbyl groups such as alkyl group containing 1-30 carbon atoms (col.3, lines 52-56, col.3, line 66-col.4, line 2, and col.4, lines 33-45). It is disclosed that the composition is used as either a concentrate wherein the above is combined with minor amount of diluent or as a lubricant wherein the above is combined with major amount of base oil possessing viscosity of SAE 75W-140. There is also a disclosure of method for making the lubricant (paragraphs 1, 3, 77, 89, 93, 121-122, 129, 130, 139, 173-175, 177, and 179). There is no disclosure of the kinematic viscosity of the composition, however, given that Cook et al. discloses composition as presently claimed including using major amount of base oil that

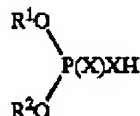
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possesses viscosity as presently claimed, it is clear that the composition of Cook et al. would intrinsically possess kinematic viscosity as presently claimed.

While Cook et al. fails to exemplify the presently claimed concentrate or lubricant nor can the claimed concentrate or lubricant be “clearly envisaged” from Cook et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed concentrate or lubricant and the concentrate or lubricant disclosed by Cook et al., it is urged that it would have been within the bounds of routine experimentation, as well as the skill level of one of ordinary skill in the art, to use concentrate or lubricant which is both disclosed by Cook et al. and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

6. Claims 1, 4-5, 7-8, 11-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milner et al. (U.S. 6,844,300) in view of Cook et al. (U.S. 2002/0119895).

Milner et al. disclose gear oil additive concentrate comprising diluent oil, sulfur-containing extreme pressure agent, phosphorous-containing anti-wear compound that is amine salt of phosphoric acid ester of the formula:



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where  $R^1$  is hydrogen or hydrocarbonyl group having 3 to 30 carbon atoms,  $R^2$  is hydrocarbonyl group having 3 to 30 carbon atoms, and X is oxygen or sulfur and wherein the compound is formed by reacting amine such as alkyl amine with phosphoric acid ester, and friction modifier. There is also disclosed gear oil comprising the sulfur-containing extreme pressure agent, the phosphorous-containing anti-wear compound, the friction modifier, and 80-98% base oil possessing viscosity of SAE 50 to SAE 250, preferably SAE 70W to SAE 140. It is disclosed that the gear oil is used in lubricated gear box. There is also disclosed method of manufacturing the gear oil by blending the above components (col.1, lines 28-32, col.3, lines 40-51 and 59-63, col.5, lines 11-20 and 48-49, col.5, line 64-col.6, line 3, col.6, lines 10-13, col.8, lines 14-31, 39-41, and 54-59, col.8, line 65-col.9, line 9, col.9, lines 27-31, col.10, lines 7-30, col.12, lines 19-27, 34, and 64-65, and col.13, lines 4-17).

The difference between Milner et al. and the present claimed invention is the requirement in the claims of hydrocarbylamine b(i).

Cook et al., which is drawn to composition for gear lubricant, disclose the use of phosphorous-containing antiwear or extreme pressure agent that is amine salt of monothiophosphoric acid wherein the amine is obtained from alkoxyated amine such as ethoxyated N-tallow trimethylene diamine. Cook et al. also disclose the equivalence and interchangeability of using such alkoxyated amine, as presently claimed, with using alkyl amine as disclosed by Milner et al. (paragraphs 129-130, 135, and 139).

There is no disclosure of the kinematic viscosity of the composition in either Milner et al. or Cook et al., however, given that the combination of Milner et al. with Cook et al. discloses composition comprising same types and amount of ingredients as presently claimed inducing

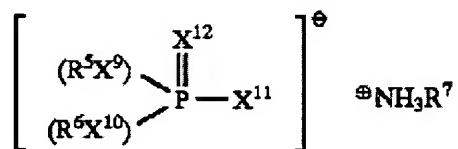
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major amount of base oil possessing viscosity as presently claimed, it is clear that the composition would intrinsically possess kinematic viscosity as presently claimed.

In light of the disclosure of the equivalence and interchangeability of using alkyl amine with using ethoxylated N-tallow trimethylene diamine disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use ethoxylated N-tallow trimethylene diamine as the amine in the composition of Milner et al. and thereby arrive at the claimed invention.

7. Claims 1, 4-8, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al. (U.S. 5,942,470) in view of Cook et al. (U.S. 2002/0119895).

Norman et al. disclose additive concentrate comprising 20-80%, preferably, 35-60% sulfur-containing extreme pressure or antiwear agent such as sulfurized olefin or polysulfide of the formula  $R-S_x-R^1$  where  $R$  and  $R^1$  are each hydrocarbyl group containing 3 to 18 carbon atoms, 10-25%, preferably, 5-10%, friction modifier, 1-15%, preferably, 5-10% amine salt of one or more partial esters of one or more acids of phosphorous of the formula:



where  $R^5$ - $R^7$  are each hydrocarbyl group and  $X^9$ - $X^{12}$  are each oxygen or sulfur, and remainder diluent. There is also disclosed composition comprising major amount of base oil possessing viscosity of SAE 50 to SAE 250, preferably SAE 70W to SAE 140, 2-4% sulfur containing

extreme pressure or antiwear agent, 0.3-1% amine salt of one or more partial esters of one or more acids of phosphorous, and 0.2-1% friction modifier. There is also disclosed method of making the composition. It is disclosed that the composition is used as gear oil for manual transmission (col.1, lines 10-15 and 45-67, col.2, lines 47-54, col.3, lines 30-48, col.4, lines 13-23, col.11, lines 1-9 and 38-40, col.15, line 66-col.16, line 6, col.16, lines 34-45, line 16, col.18, lines 16-20 and 39-47, col.18, line 61-col.19, line 30, and col.22, lines 49-61).

The difference between Norman et al. and the present claimed invention is the requirement in the claims of hydrocarbylamine b(i).

Cook et al., which is drawn to composition for gear lubricant, disclose the use of phosphorous-containing antiwear or extreme pressure agent that is amine salt of monothiophosphoric acid wherein the amine is obtained from alkoxyated amine such as ethoxyated N-tallow trimethylene diamine. Cook et al. also disclose the equivalence and interchangeability of using such alkoxyated amine, as presently claimed, with using alkyl amine as disclosed by Norman et al. (paragraphs 129-130, 135, and 139).

There is no disclosure of the kinematic viscosity of the composition in either Norman et al. or Cook et al., however, given that the combination of Norman et al. with Cook et al. discloses composition comprising same types and amount of ingredients as presently claimed inducing major amount of base oil possessing viscosity as presently claimed, it is clear that the composition would intrinsically possess kinematic viscosity as presently claimed.

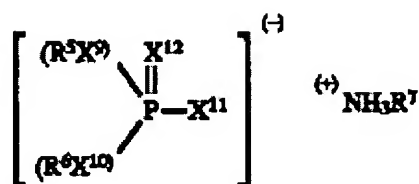
In light of the disclosure of the equivalence and interchangeability of using alkyl amine with using ethoxyated N-tallow trimethylene diamine disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use ethoxyated

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N-tallow trimethylene diamine as the amine in the composition of Norman et al. and thereby arrive at the claimed invention.

8. Claims 1, 4-5, 7-8, 11-12, 14, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Walters et al. (U.S. 5,700,764) in view of Cook et al. (U.S. 2002/0119895).

Walters et al. disclose gear oil composition for gear box where the composition comprises 0.6-3% sulfur-containing antiwear and/or extreme pressure agent such as sulfurized olefin or polysulfide such as dinonyl polysulfide, 0.04-0.25% phosphorous-containing antiwear and/or extreme pressure agent that is amine salt of partial ester of thiophosphoric acid of the formula:



where  $R^5$ - $R^7$  are each hydrocarbyl group and  $X^9$ - $X^{12}$  are each oxygen or sulfur, 0.2-0.8% amine such as alkylamine, friction modifier, and major amount of base oil possessing viscosity of SAE 75W to SAE 90. There is also disclosed method of making the composition. There is also disclosed concentrate comprising diluent oil, the sulfur-containing antiwear and/or extreme pressure agent, the phosphorous-containing antiwear and/or extreme pressure agent, and the amine such as alkylamine (col.1, lines 3-5, col.2, lines 1-3 and 32-44, col.2, line 66-col.3, line 17, col.3, lines 45-51 and 63-67, col.4, lines 1-19, 23-25, 29, and 34-41, col.5, lines 43-48, col.6,

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lines 21-42, col.6, lines 64-67, col.7, lines 4-32, col.8, lines 38-39, col.9, lines 7-18, col.19, lines 55-58, col.22, lines 1-13, col.23, lines 35-42, and col.24, lines 15-18).

The difference between Walters et al. and the present claimed invention is the requirement in the claims of hydrocarbylamine b(i).

Cook et al., which is drawn to composition for gear lubricant, disclose the use of phosphorous-containing antiwear or extreme pressure agent that is amine salt of monothiophosphoric acid wherein the amine is obtained from alkoxyated amine such as ethoxylated N-tallow trimethylene diamine. Cook et al. also disclose the equivalence and interchangeability of using such alkoxyated amine, as presently claimed, with using alkyl amine as disclosed by Walters et al. (paragraphs 129-130, 135, and 139).

There is no disclosure of the kinematic viscosity of the composition in either Walters et al. or Cook et al., however, given that the combination of Walters et al. with Cook et al. discloses composition comprising same types and amount of ingredients as presently claimed inducing major amount of base oil possessing viscosity as presently claimed, it is clear that the composition would intrinsically possess kinematic viscosity as presently claimed.

In light of the disclosure of the equivalence and interchangeability of using alkyl amine with using ethoxylated N-tallow trimethylene diamine disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use ethoxylated N-tallow trimethylene diamine as the amine in the composition of Walters et al. and thereby arrive at the claimed invention.

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9. Claims 1, 4-8, and 11-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Barber et al. (U.S. 5,126,064) in view of Cook et al. (U.S. 2002/0119895).

Barber et al. disclose lubricant for lubrication of gears wherein the lubricant comprises base oil possessing viscosity of SAE 75W to SAE 90, 1-20% sulfur-containing extreme pressure or anti-wear agent that includes sulfurized olefin, polysulfide of the formula  $R-S_x-R'$  wherein R and R' are each hydrocarbyl groups possessing 3 to 18 carbon atoms and x is 3-12, amine salt of fully or partially esterified hydrocarbyl esters of monothiophosphoric acid comprising hydrocarbyl group of 2-30 carbon atoms, 0.1-2% amine such as alkylamine, and friction modifier. There is also disclosed method of making the lubricant. It is disclosed that the lubricant is supplied as either a finished lubricant ready for use or in the form of an additive concentrate that requires dilution with base lubricating fluid before use. The concentrate comprises 5-80% sulfur-containing extreme pressure or anti-wear agent, 0.05-20% amine, 0.25-15% friction modifier, and minor amount of diluent oil. It is disclosed that the composition comprises base oil and, for instance, 8% of the concentrate (col.1, lines 4-6 and 51-54, col.2, lines 38-45, col.3, lines 1-11, 16, and 28-66, col.4, lines 22-35, col.6, lines 15-18, col.6, line 23-col.7, line 14, and col.7, lines 21-40 and 52-53).

The difference between Barber et al. and the present claimed invention is the requirement in the claims of hydrocarbylamine b(i).

Cook et al., which is drawn to composition for gear lubricant, disclose the use of phosphorous-containing antiwear or extreme pressure agent that is amine salt of monothiophosphoric acid wherein the amine is obtained from alkoxylated amine such as ethoxylated N-tallow trimethylene diamine. Cook et al. also disclose the equivalence and



interchangeability of using such alkoxylated amine, as presently claimed, with using alkyl amine as disclosed by Barber et al. (paragraphs 129-130, 135, and 139).

There is no disclosure of the kinematic viscosity of the composition in either Barber et al. or Cook et al., however, given that the combination of Barber et al. with Cook et al. discloses composition comprising same types and amount of ingredients as presently claimed inducing major amount of base oil possessing viscosity as presently claimed, it is clear that the composition would intrinsically possess kinematic viscosity as presently claimed.

In light of the disclosure of the equivalence and interchangeability of using alkyl amine with using ethoxylated N-tallow trimethylene diamine disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use ethoxylated N-tallow trimethylene diamine as the amine in the composition of Barber et al. and thereby arrive at the claimed invention.

10. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laing et al. (U.S. 4,710,100) in view of Cook et al. (U.S. 2002/0119895).

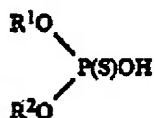
Laing et al. disclose wind turbine comprising gear assembly wherein the gear assembly requires lubricant (col.1, lines 4-6 and col.3, lines 50-52).

The difference between Laing et al. and the present claimed invention is the requirement in the present claims of specific composition.

Cook et al., which is drawn to lubricant for turbine, disclose the use of lubricant composition comprising polysulfide, dithiocarbamate, i.e. friction modifier, and amine salt of monothiophosphoric acid wherein the amine includes ethoxylated N-tallow trimethylene diamine

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and which corresponds to the presently claimed combination of hydrocarbylamine and alkylphosphoro(mono)thioate. For specific types of monothiophosphoric acid, Cook et al. refers to Burjes et al. (incorporated by reference) which discloses monothiophosphoric acids of the formula:



where R<sup>1</sup> and R<sup>2</sup> are each hydrocarbyl groups such as alkyl group containing 1-30 carbon atoms (col.3, lines 52-56, col.3, line 66-col.4, line 2, and col.4, lines 33-45). It is disclosed that the composition is used as a lubricant wherein the above is combined with major amount of base oil. The motivation for using such composition is that the composition possesses good anti-wear properties (paragraphs 1, 3, 77, 89, 93, 121-122, 129, 130, 139, 173-175, 177, and 179).

In light of the motivation for using specific lubricant disclosed by Cook et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such lubricant in the wind turbine of Laing et al. in order to produce turbine with good anti-wear properties, and thereby arrive at the claimed invention.

### **Response to Arguments**

11. Applicants' arguments regarding EP 620268 have been considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

12. Applicants' arguments filed 5/2/06 have been fully considered.

Specifically, applicants argue that there is no disclosure in Cook et al. of hydrocarbylamine compound selected from the group consisting of N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof as now required in all the present claims.

However, attention is drawn to paragraph 139 of Cook et al. that discloses the use of ethoxylated N-tallow trimethylene diamine as presently claimed.

Applicants also argue that there are no examples in Cook et al. that utilize alkylphosphoro(mono)thioate as required in the presently claimed. However, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others", *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). A fair reading of the reference as a whole (paragraph 139) clearly disclose the use of alkylphosphoro(mono)thioate as presently claimed.

Further, applicants argue that there is no disclosure in Norman et al., Walters et al., or Barber et al. of hydrocarbylamine compound selected from the group consisting of N-oleyl trimethylene diamine, N-tallow trimethylene diamine, N-coco-trimethylene diamine, and combinations thereof as now required in all the present claims.

It is agreed that neither Norman et al., Walters et al., nor Barber et al. disclose the presently claimed hydrocarbylamine. This is why each reference is now used in combination with Cook et al. which teaches the equivalence and interchangeability of using alkyl amine as

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disclosed by Norman et al., Walters et al., or Barber et al. with using ethoxylated N-tallow trimethylene diamine as presently claimed.

Applicants argue that there is no motivation to combine Laing et al. with Cook et al.

It is agreed that Laing et al. do not disclose specific lubricant as presently claimed which is why Laing et al. is used in combination with Cook et al. It is significant to note that Laing et al. disclose wind turbine that comprises gear assembly and that such gear assembly requires lubricant. Cook et al. disclose lubricant for a turbine and further discloses that the motivation for using such lubricant is that it possesses good anti-wear properties. Given that Laing et al. disclose turbine requiring lubricant and given that Cook et al. disclose lubricant for turbine as well as motivation for using such lubricant, and absent evidence to the contrary, it is the examiner's position that there is proper motivation to combine Laing et al. with Cook et al.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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713/06